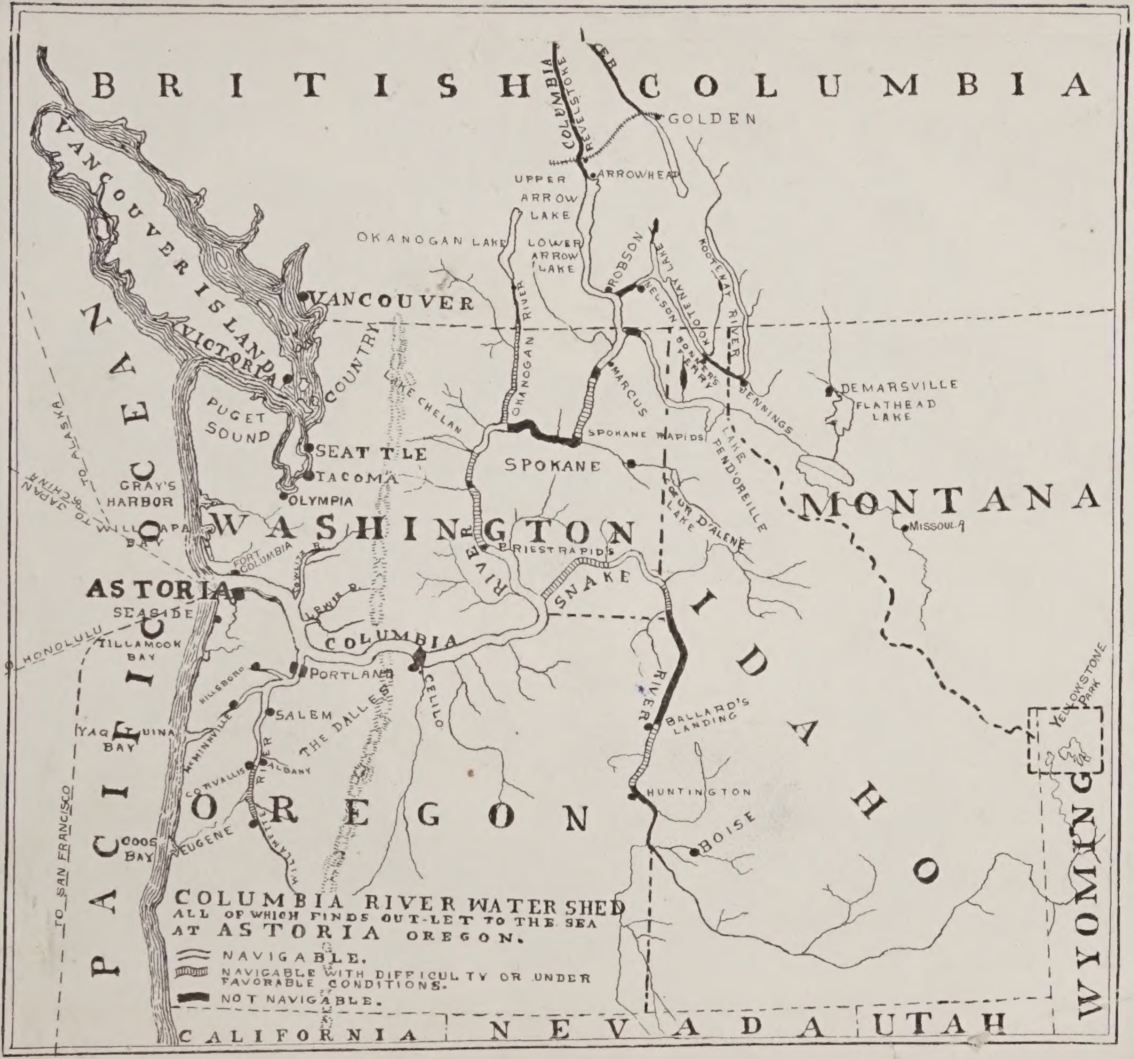
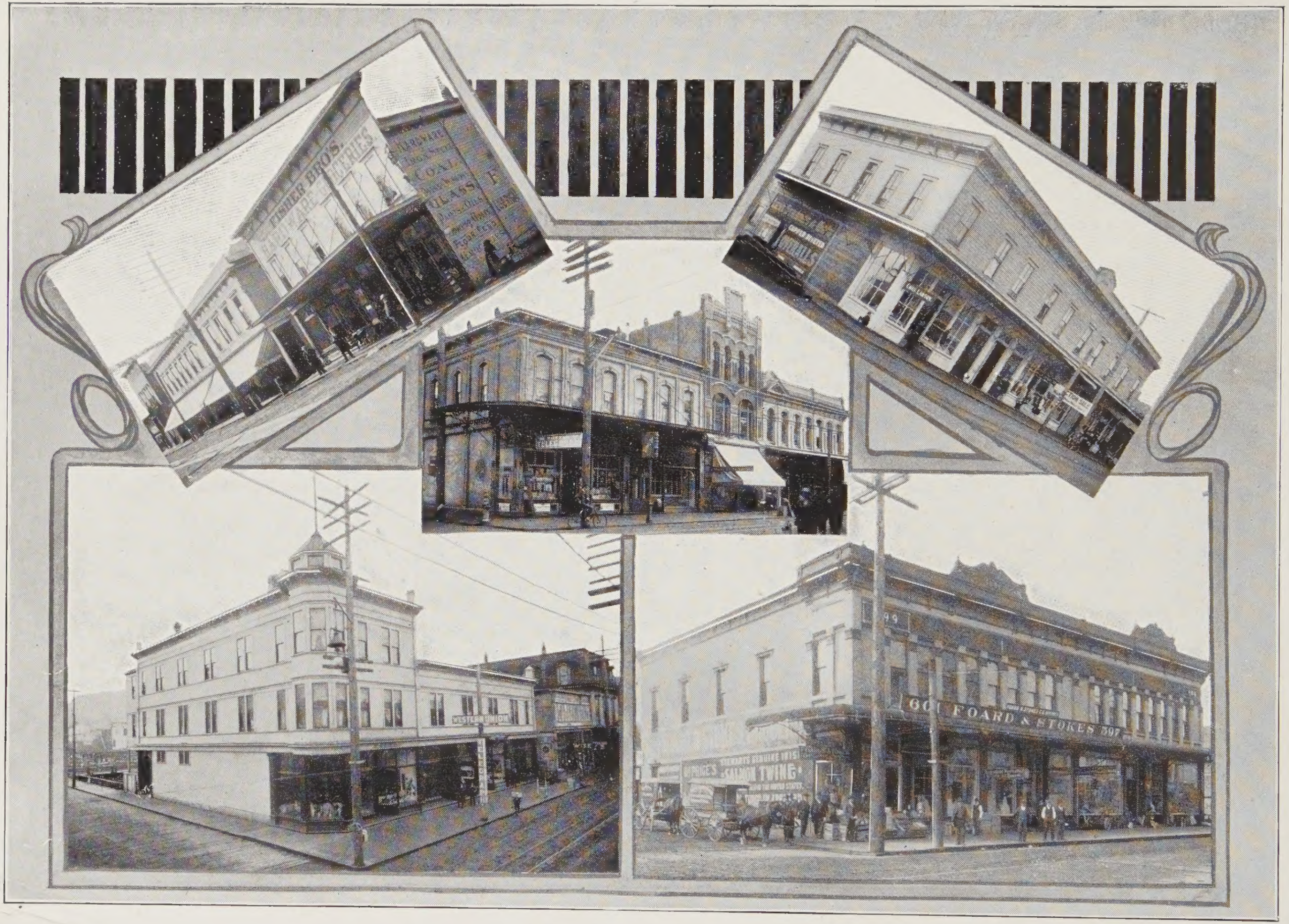


COLUMBIA RIVER WATER SHED
ALL OF WHICH FINDS OUT-LET TO THE SEA
AT ASTORIA OREGON.

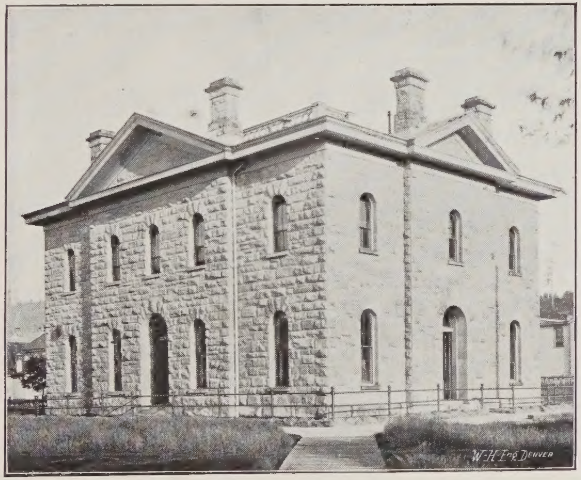


GROUP OF BUISNESS BLOCKS.

HISTORIC ASTORIA.

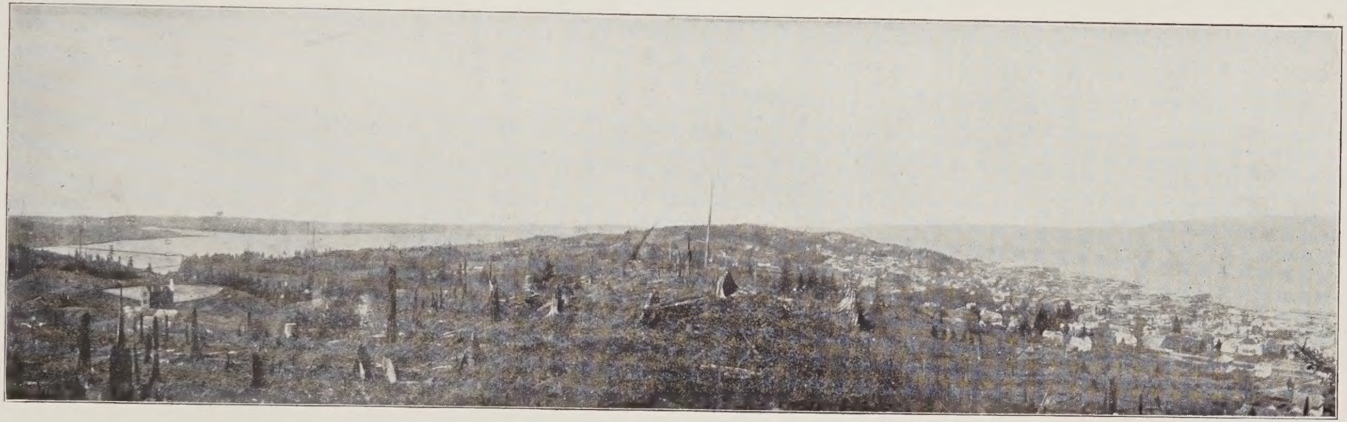
ASTORIA'S beginning really dates back to April 15, 1811, when agents of America's first great financier, John Jacob Astor, of New York, selected the site for the new post in the vast wilderness then known as the Louisiana tract, and named it for the commercial genius whose strenuous enterprise had prompted him to send expeditions thither to open up a fur trade which would, he fondly hoped, reach wonderful proportions, and add millions to what, in his day, was a great fortune. No more striking example of commercial vigor is presented in our industrial history, for the spirit which prompted the hardy pioneer to brave the dangers incident to the long tramp across the plains actuated the energetic Astor in his Pacific venture.

On May 11, 1792, Captain Robert Gray, of Boston, cruising along the "Oregon" coast, discovered a great river and sailed his brig Columbia into it. The river was explored for 20 miles, and its magnitude impressed the explorer with the importance of his discovery. Naming the river after his brig, Captain Gray set sail for civilization, and his narrative stirred the people of the Atlantic coast just as the Klondike gold discoveries excited the venturesome in the closing years of the nineteenth century. Statesmen and financiers alike appreciated the immense possibilities of the new country, and the first step in a great commercial development was taken in 1803, during the administration of President Jefferson, when the Louisiana purchase was made. The Louisiana tract was bought from France, and extended from the mouth of the Mississippi to the headwaters of the Missouri river, including also a strip of vague dimensions lapping beyond the Rocky mountains. The year following the purchase, the government started an exploration party to the



U. S. CUSTOM HOUSE AND POSTOFFICE.

During the Annual Regatta.

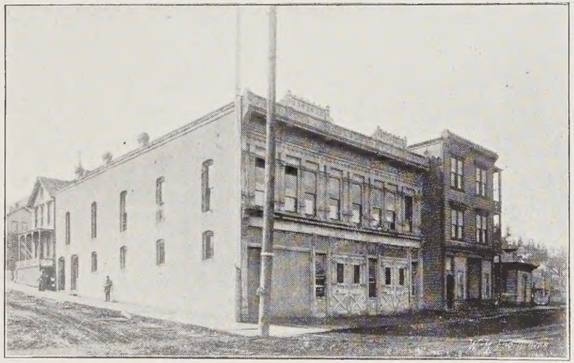


ASTORIA PLATEAU.

Pacific, under command of Captains Meriwether Lewis and William Clark. With 180 men, those intrepid explorers made their way from St. Louis, then an insignificant trading post, to the Western ocean, after a series of hardships that is almost without parallel in our history. Beset at every step with savage foes, the adventurers fought their way westward over 3000 miles of country, following the Missouri from its junction with the Mississippi to its headwaters, crossing the Rockies to the headwaters of the Columbia, and then traveling down the banks of the great Western river to its mouth. On November 15, 1805, the hapless explorers reached their destination and went into winter quarters on the stream known since as the Lewis and Clark river, a few miles southwest of Astoria, the anniversary of which will be celebrated in 1905 at Portland, Oregon. (See location on back cover.)

In March, 1806, the return trip was begun, and in the fall of that year the expedition reached St. Louis. The official report of the exploration was given wide publicity, and again the West became the great topic of conversation. It was then that Astor began to plan his famous enterprise. The establishment of permanent headquarters at the mouth of the Columbia would, he reasoned, give him easy access to the trade of the Orient, whence his ships might go laden with furs, and return with silks, teas and spices. Mr. Astor had the warm support of President Jefferson in his great venture, and in a letter to the president the New Yorker gave an insight into his commercial scheme when he said he hoped to make his proposed headquarters on the Pacific "the capital and metropolis of a commercial empire beyond the Rocky mountains, peopled by free and independent Americans, linked with us by ties of blood and interest, and enjoying, like us, the rights of self government."

In June, 1810, Mr. Astor organized the Pacific Fur Company, with Wilson Price Hunt, of New Jersey, and Alexander McKay, Donald McDougal and Donald McKenzie, formerly of the Northwest Fur Company, an English concern, as partners. Two expeditions—one by land, the other by sea—were started for the proposed seat of activity. The ship Tonquin sailed from New York July 8, 1810. The vessel was equipped with 10 guns, and was in command of Captain Jonathan Thorn. The Tonquin arrived off the Columbia March 22, 1811, entered the river March 24, and on April 15 the site for the headquarters was selected. A small fort was built, dwellings erected, gardens planted, and the settlement christened Astoria. Then, for the first time, the stars and stripes were raised over a Pacific coast colony, and the foundation of a new commercial empire was laid. After a brief stay, the Tonquin departed on a trading expedition along the Northern coast. Indians attacked and massacred all the crew with the single exception of a young clerk named Lewis. The sole survivor set fire to the ship's magazine, destroying the vessel and killing the scores of natives who swarmed the decks, greedy for plunder. Lewis, too, was blown to atoms, but his vengeance had been complete. In this tragic manner, the first Astoria-bound ship met her doom.



FIRE ENGINE HOUSE NO. 1

The overland expedition was led by Messrs. Hunt and McKenzie, Mr. Astor's business associates, and left St. Louis October 21, 1810, with 60 men. The ragged remnant of this hardy band reached Astoria February 13, 1812, after hardships even greater than those endured by the members of the Lewis and Clark expedition. Of the 60 men who started on this tour of exploration, only five returned to civilization; six remained at Astoria, and the others perished.

Fort Astoria was an American post until December 12, 1813, when the British warship Raccoon took the place. The English flag was raised, and the settlement renamed Fort George.

In October, 1813, Duncan McDougal, one of the partners, had betrayed his associates and sold the post for a trifling sum to the Northwest Fur Company. The British retained possession of the post until October 6, 1818, when it was restored to the United States under the treaty of Ghent. The Hudson's Bay Company absorbed the Northwest Fur Company in 1821, built a fort of 20 guns, and practically held the country until 1846. In 1846, James Welch with the first white family settled at Astoria and the first frame house was built. That year a treaty was entered into between the United States and Great Britain, under which the latter's domination ceased. In 1847 a postoffice was established at Astoria, J. M. Shively being the first postmaster, and in 1849 a customs-house, the first on the Pacific coast, was built, and General John Adair was commissioned as collector. In 1856 a provisional town government was organized, and in 1876 Astoria was incorporated as a city by an act of the state legislature.

John Jacob Astor's great fur-trading enterprise had, through the negligence of business associates, been a financial failure, but he had succeeded in laying the foundation of a commercial empire now supporting almost 5,000,000 people and which will, in the next decade, sustain 10,000,000 or more.

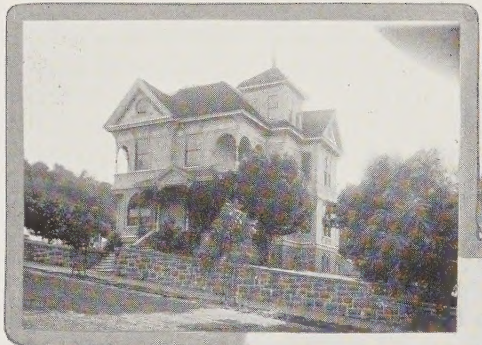
This, briefly, is the history of Astoria and the important part it has played in our national development. No student of history will have completed his knowledge of our country without familiarizing himself with Washington Irving's "Astoria," which is commended to those who receive this souvenir of "the City by the Sea."

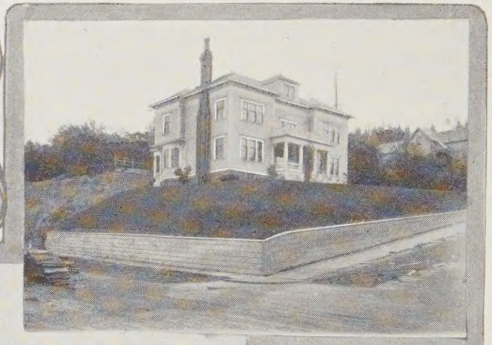
* * * * * *

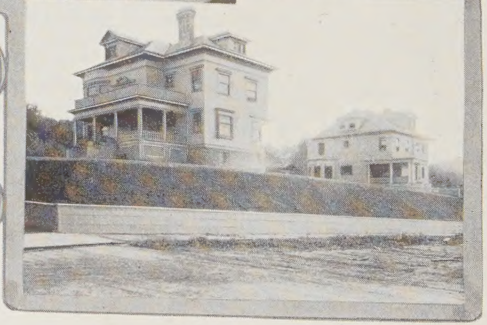
LEWIS AND CLARK CENTENNIAL.

- - - 1805-1905. - - -

The discovery of the Great River of the West by Captain Robert Gray, in 1792, and the expedition of Lewis and Clark, in 1805-6, added to our national domain a vast territory, equal to more than twenty such states as New York. The celebration of this national event has been undertaken by Portland in 1905, the first centenary of the Lewis and Clark exploration, which Astoria heartily endorses, and asks the national government and states to assist by liberal contributions. By these discoveries it was made possible for the United States to control the trade and to revolutionize the greater part of the world's commerce.







ASTORIA OF TODAY.

ASTORIA today is a bustling, cosmopolitan city of 10,000 people. Its population represents almost every nationality on earth, in consequence of which it is a lively center of business activity. Its advantageous location at the mouth of the great Columbia river makes it the trade mart of the vast productive region of Northwestern Oregon and Southwestern Washington, and it is the supply point for fully 25,000 people. It is Oregon's second city in size and importance.

COMMERCIAL STREET LOOKING WEST.

The estimate of population here given is conservative. The 1900 government census accredited the city with about 8500 people, but the launching of new enterprises, together with the natural growth, has added many hundreds to the population in the past two years. Failure to develop local resources has resulted in slow growth, but a new era of commercial activity is dawning and the prospects for the city's future are very bright. Some idea of the extent of the growth of Astoria can be gained from the statement that, during the first six months of the year 1902, the joint manufactories committee of the commercial organizations located five big enterprises, which will add fully 2000 to the population.

Astoria is progressive and enjoys a wide reputation for enterprise. The people are always willing to aid new industries and have contributed liberally whenever called upon. Perhaps the most noteworthy display of commercial enthusiasm was made when the Astoria & Columbia River railroad project was undertaken. At that time the people of the city subscribed money and land to the extent of $1,500,000, or almost $200 for every man, woman and child then living here. The Universal Sash & Door Company was recently given a cash bonus of $4000 and the necessary site for its plant, and the people went so far as to build a spur to connect the factory with the main line of the railroad. The building of this spur, it may be added, opens up a tract of manufacturing sites six miles in length.

On its magnificent location and wonderful natural advantages Astoria bases its expectations of future greatness. Situated on the only fresh-water harbor of importance in the world, with the broad ocean but 10 miles from its wharves, it enjoys marked advantages as a shipping center. The gravity route of the Columbia river is nature's highway for the great Inland Empire, the immense product of which must be exported from the ocean port. At Astoria the largest ships may find safe moorings, and its harbor will accomodate all the shipping that may ever come to the Northwest coast. It is pre-eminently the Pacific slope port, as New York is the Atlantic port, and must soon receive from the transcontinental railroads the recognition which its advantages justify, as has New York on the Atlantic coast.

Development of the lumbering industry will alone make Astoria great. As will be seen from an article appearing elsewhere in this book, there are 75,000,000,000 feet of timber standing in the forests near the city. This vast timber supply is great enough to keep in steady operation for 20 years 100 large mills, and to afford

COMMERCIAL STREET LOOKING EAST.

employment during that period to 15,000 persons in the manufacturing plants, to say nothing of the army of workmen that would be employed in the forests. The first steps towards the development of lumbering have now been taken, and soon four mills, with a daily output exceeding 300,000 feet, will be in operation. The forests are only a short distance from the city, and the cost of bringing logs to Astoria is light, making this a most desirable point for the manufacture of lumber. The advantages offered by this city as a milling point are beginning to attract the attention of millmen who desire to operate economically, and before long Astoria will rank as the largest lumber-producing port on the Pacific coast.

The growth of the salmon industry will likewise prove of great benefit to Astoria. By means of artificial propagation, this magnificent business has come to stay, as the increase in the output of 1902 over 1901 clearly demonstrates, it being more than 100,000 cases. It will be built up, within a few years, to four times its present magnitude, and will then mean more than $10,000,000 annually to the city. Several Alaskan salmon canneries are owned and operated here and each year bring large sums to their home offices. The possibilities of Astoria as a

ODD FELLOWS BLOCK.

fishing port or center in other lines of fishing industries are also of great importance, and the attention of capitalists is called to this city as a deep-sea fishing center; also to the great runs of genuine French sardines which come into the river by the hundreds of billions every year. The Lower Columbia river district, with its mild climate, offers unsurpassed inducements to dairymen, farmers and small-fruit growers. While small-fruitgrowing has not been extensively engaged in, those who have followed it have been most successful, and one enterprising grower is now harvesting two strawberry crops a year—the only instance of the kind known in this section of the country. Settlement of the productive lands of the county will work wonders for the city and assist materially in its upbuilding. There are many other resources which will combine to bring about the future greatness of Astoria. Here are to be found opportunities for men in every walk of life—capitalist, small investor, farmer, dairymen, fruitgrower and laborer. This new country, where fortunes await the energetic, offers to those seeking location the best advantages of any section of the West.

In every respect Astoria is metropolitan. It enjoys splendid facilities of all kinds, is a

THE FLAVEL BLOCK

pleasure-loving city and thoroughly up-to-date. Thousands of strangers visit Astoria every month, and during the summer season it is the Mecca of those who live in the interior. It has its different quarters, like the larger cities, and, best of all, it is the healthiest spot on earth.

Astoria wants more people. Its natural resources will easily support from 250,000 to 500,000 population, yet there are less than 15,000 people here to reap the benefits that nature has so generously placed at their disposal. The homeseeker will find no better place to locate, and few equal places. Labor is always in demand, at the highest wages, and there is much encouragement for the man who wishes to engage in business. Strangers often remark the uniform courtesy of the people and the general effort on the part of Astorians to make matters pleasant for visitors. The homeseeker or investor who fails to visit Astoria will make a great mistake, for no other community in the Pacific Northwest offers such opportunities as the Lower Columbia river district.

RESIDENCE STREET IN ASTORIA.

ASTORIA HAS—

A $300,000 gravity water system.
A paid fire department.
First-class street-car service.
Gas and electric lighting systems.
Free public library.
Unexcelled transportation facilities.
Complete school system.
Good hotels.
Fine stores in all lines.
Forty civic societies.

Three daily and six weekly newspapers.
Excellent telegraph and telephone service.
Three banks and two express offices.
First-class theater.
Fourteen churches.
Labor unions representing every branch of trade.
Two energetic commercial organizations.
Two social clubs.
Admirably conducted hospital.
Miles of manufacturing sites.

DAM OF ASTORIA WATER WORKS.

YOUNG'S RIVER FALLS

Plenty of fine residence and business property.

Is the only fresh-water seaport on the Pacific coast.

Is situated at the mouth of a river that drains an empire.

Has a harbor large enough to accommodate the combined shipping of the Pacific coast.

Has a trunk-line railroad connecting it with four transcontinental railroads.

Is the uttermost railroad extension point on the American continent.

Is 200 miles nearer Yokahama and other Oriental ports than any other Pacific coast port.

Is 160 miles nearer the Cape Nome mining country than any other port on the Pacific coast.

Is the salmon shipping center of the world.

Is the center of one of the greatest possible dairy industries that the country today possesses.

SOME OF ASTORIA'S INDUSTRIES.

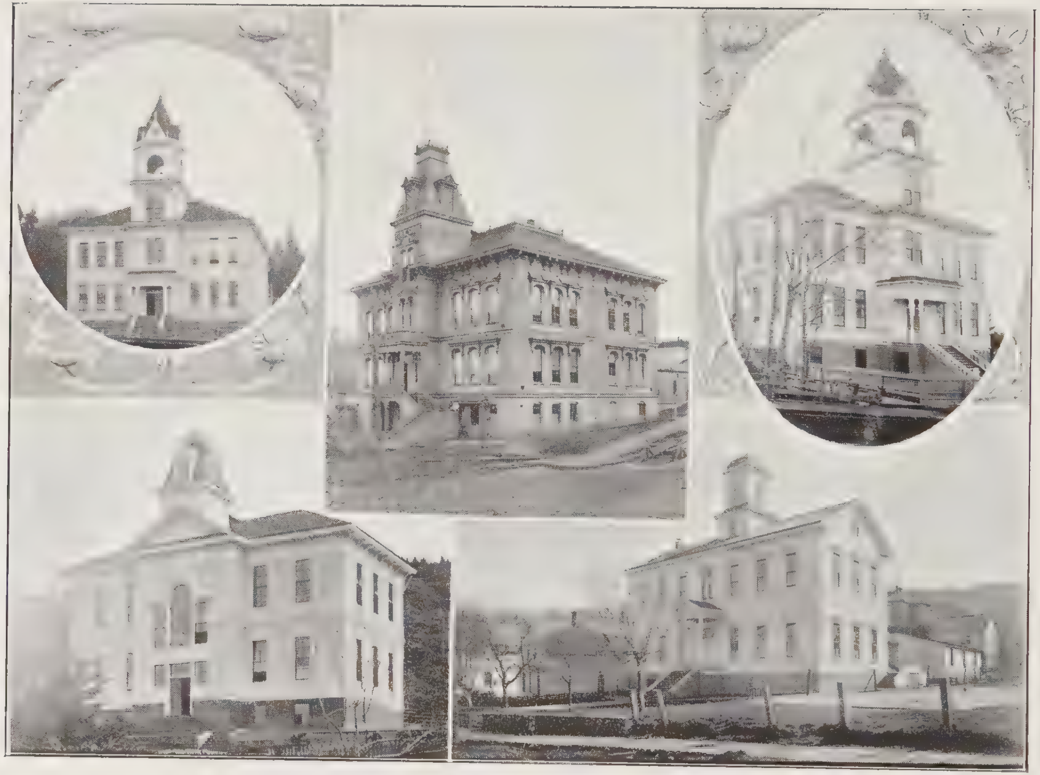
Is the only place where the royal Chinook salmon is packed.

Is tributary to large coal deposits awaiting development.

Has substantial public and business buildings, factories and handsome residences.

From Astoria will be marketed 75,000,000,000 feet of the finest of timber. Thirty millions of dollars have been invested in Western Oregon timber lands by Eastern buyers during the three years prior to July, 1902.

The same Alaska trade to the Dawson district that built up Seattle is within command of Astoria. The Cape Nome trade and North Siberia trade are more at the command of Astoria than any other port on the Pacific coast.



ASTORIA CITY SCHOOLS

ASTORIA'S SCHOOL SYSTEM.

ASTORIA'S school system is not surpassed by that of any other city of the size in the West. At present there are five large school buildings here, and a sixth is now in course of construction. The schools are conveniently located in all sections of the city, and in every respect are modern in their appointments. Not included in this statement of educational facilities is the Convent of the Holy Names, exclusively for girls, an institution that has received much deserved encouragement. At this school music is taught in addition to the regular educational courses, and about 75 pupils attend. There are also several kindergartens. The public schools of this city embrace one district, being separate from the schools in the country. The most advanced methods of teaching are employed, and particular attention is paid to the health of the pupils. The Astoria High school, established in 1891, is attended by about 100 students. At this school are taught the higher branches of education, and the High School graduate may, without examination, enter the University of Oregon. Well-appointed schools are to be found throughout the county, and children living on farms and in villages enjoy educational advantages almost equal to those afforded city children. There are schools in all of the 37 school districts in the county, the 44 buildings being valued at $150,000. The six city schools represent an investment of about $90,000. The following city school statistics are furnished by City Superintendent A. L. Clark:

SCHOOL.	Boys' Register.	Girls' Register.	Total.	Number Teachers.
High School	47	51	98	4
McClure School	179	163	342	7
Shively School	161	112	273	6
Adair School	155	148	303	6
Olney School	132	117	249	4
Alderbrook School	41	48	89	3
Totals	715	639	1359	30

ASTORIA'S WATER SYSTEM.

ASTORIA possesses a $300,000 gravity water system, which is not equalled in equipment by any other system in the Pacific Northwest. The water works are operated by the municipal government as represented by the water commission, and constitute the city's most valuable asset. The water is brought from Bear creek, about 10 miles distant, which has its source in the mountains.

The reservoir is situated on the plateau back of the city, where the supply is regulated. The water system of Astoria is extensive enough to supply the needs of 100,000 people, besides affording fire protection to all parts of the city.

The water works were built in 1896, and the available supply is 4,000,000 gallons daily. The system is considered absolutely perfect in every respect.

THE LUMBERING INDUSTRY.

"THE mouth of the Columbia river has the greatest body of timber tributary and available of any point in the world."

This statement comes from A. J. Johnson, United States government forestry expert, who is a recognized authority. The Oregon timber exhibits at the Omaha, Buffalo and Charleston fairs, which excited universal interest, were arranged by Mr. Johnson, and he is thoroughly acquainted with every section of timber on the Pacific coast.

The lumbering business is the largest in the Pacific Northwest; it outranks in value of product any other line. Production of wheat is close second, being worth $17,000,000 a year, while the value of the lumber output is $18,000,000. Coal, gold and silver, fruit, cattle and sheep, wool and fish, all of which are produced in great abundance, fall far below, nor hardly equal in the aggregate, the wealth derived from the forests. The town, therefore, that commands the greatest resources available of fine timber must have a great outlook. Demand for timber will not decrease, but become greater with every year. The only question will be, "Where is the supply?"

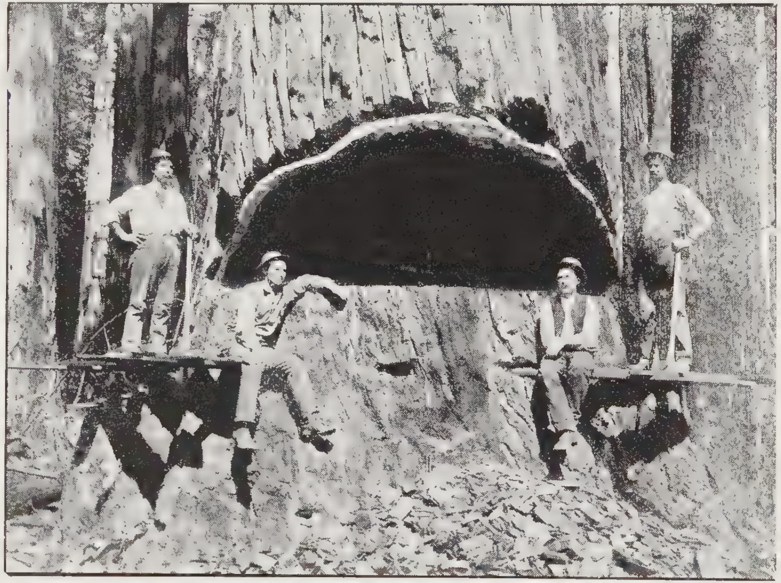
CLATSOP MILL COMPANY.

The demand for lumber comes from the Mississippi valley, the mining camps of the

Spruce Timber.

Rocky mountains, Eastern Oregon, Washington and Idaho; California, which consumes much Oregon pine along with her redwood finishing lumber, and has great demand for spruce boxes for the fruit business; South America and the Hawaiian islands, that have long been importers; Australia and South Africa. The shipbuilders of the Eastern Atlantic states use Oregon timber for masts and spars and ship decking, as also do the British builders. Much Oregon timber is wanted in England for resawing and fine processes of finish for furniture, paneling and the like. Fir, or, as commercially known, Oregon pine, is unexcelled and in large demand for heavy "v" framing, such as bridging and even car building, for stairways and any work requiring strength and lightness; the fir stave, prepared with paraffine, is also in demand; the fir finish in oil or wax is recognized as very handsome, steam-drying the wood removing the objectionable pitch; fir flooring, grain edge, has no equal, unless of selected hemlock; the fir door, properly prepared, is coming into great demand, being reckoned a hard wood. Spruce for boxes, shelving, fine finishing, after steam-drying, and spruce and hemlock, both for paper, are in increasing demand. The wooden ship, the most profitable coaster, requires fir.

The amount of timber accessible from Astoria is 75,000,000,000 feet. As it stands in the forests it is worth fully $75,000,000. It is the basis of a business ten times that sum. This is all now available and merchantable timber. There is much besides that is not included in this estimate. Mr. Johnson states that estimates within 10 or 20 years will include enough more, that is now counted inferior, to bring the standing timber of Clatsop county up to 25,000,000,000 feet, the present estimate being 18,000,000,000. By statistics of the American Lumberman of November 16, 1901, the amount of timber now merchantable standing on the Columbia river slope of Clatsop and Columbia counties was reckoned at 8,000,000,000 feet; in the Nehalem valley, 17,000,000,000 feet; to Tillamook bay, 6,000,000,000 feet. All this is available by river or rail to Astoria. On the north side of the Columbia, in Washington, from the outh of the Kalama river west, a vast supply is available from the Columbia. In Mr. Johnson's estimate of 75,000,000,000 available at Astoria no mention was made of the large body, perhaps nearly as much again, in the Cascade mountains on both sides of the Columbia. Once in the waters of this river, where no toredo is found to enter and destroy them, the logs need only to float down to Astoria or be towed with the current.



The timber trees of the forests tributary to Astoria are, in order of quantity: Douglas fir, commercially known as Oregon pine; hemlock, spruce and cedar. There are also soft, or birdseye, maple, vine maple, alder, wild cherry, willow, etc.

The fir is both red and yellow. It grows five to 14 feet in diameter, and 150 to 300 feet tall; 351 feet is said to have been measured on one fallen tree in the coast mountains. Considerable noble fir, or larch, and some white pine are found on the highest of the coast mountains, but little near Astoria. The spruce, of the tideland species, or Sitchensis, is found only on the west slopes of the coast mountains. It attains a diameter varying from about an average of six feet to 16 or 17; and specimens 57 and 63 feet each in girth have been measured—19 to 21 feet in diameter. Hemlock occurs as a mixed or smaller growth with fir and spruce, trees seldom being over four feet in diameter. Cedar is found mixed with the other timbers, the trees seldom being of great height, although often very large. Yet cedar is not plentiful in this section. In general estimates of timber production 20,000 feet to the acre are allowed. Single acres have been known to produce ten times this amount. Quarter sections of timberland on the market are usually estimated at 3,000,000 to 8,000,000 feet each, board measure.

Standing timber is valued at 75 cents to $2 per thousand stumpage, according to location. Timber claims on the Nehalem slope, of the best possible timber, but not as yet opened to enterprise, are sold for $500 to $800 and $1000 up to $2000 per quarter section. On the Columbia slope, being nearer market, prices are double the above. Such has been the demand for timber claims, however, that these may be bought only at considerable distance from market. Much of the timber is owned by large companies, doing their own logging. The constant tendency is towards concentration of timberlands into the hands of large concerns. Timberland may still be found open to government entry, but anyone attempting to secure such places will do best by applying to reliable timber locators, doing business in the country. The price of logs is $5 to $7 per thousand feet, delivered; or, exceptionally, more than this. Measurement over 60 inches is usually not included in the estimate. The price of rough lumber is quoted at $8 to $10 per thousand; but for fine selected boards, for flooring or

Clatsop County's Forests

special work, it is up to $30, or even $50 may be demanded in a few years. Value of fir depends much on texture, grain, etc., the same log furnishing a number of grades, the grain running from four up to 60 or more to the inch.

Lumbering at Astoria, owing to local causes, has lingered later than at other points in the Northwest, but for this reason will last longer. The mills in operation are: Astoria Box Company, capacity of 40,000 feet daily; Clatsop Mill Company, whose recently burned plant is being rebuilt and almost completed, with capacity of 100,000 feet in 10 hours; George W. Hume mill, now building, with capacity of 125,000 feet in 10 hours; Gompers mill, building, with capacity of 30,000 feet daily; Sutter mill, at Westport, with 50,000 feet capacity; Warrenton mill, with 20,000 feet capacity; Seaside box factory and mill, with capacity of 30,000 feet; Columbia mill, at Knappton, with 90,000 feet capacity. These mills require

KNAPPTON MILLS.

A SPRUCE LOG

In the Tall Timber.

Coming up the Hill

about 485,000 feet of timber daily. Negotiations are under way for the establishment of several other large mills at Astoria, and the yearly production will soon exceed 200,000,000 feet.

A business of this volume is already in sight, and of more than half this volume already established. About half the total value goes to the loggers—the other half to the mills. To the city, the merchants and businessmen of all kinds, the profit of supplying loggers and mills and the families of laborers is assured. Elsewhere will be found statistics of men employed in mills already in operation. It is certain that lumbering is but beginning at Astoria, and the supply is sufficient to continue it here at an annual output not of 100,000,000 feet worth $1,000,000 to the city, but at 1,000,000,000 feet per year, for 75 years, and worth 10 times one million a year.

ASTORIA BOX COMPANY.

HEMLOCK TIMBER.

Not the least valuable of the timbers of Clatsop county is the hemlock, of which there are fully 2,000,000,000 feet in the forests adjacent to Astoria. The bark finds ready sale for tannan purposes, as its quality is of the best and its wood is pronounced by experts to be far superior to spruce for use in the manufacture of pulp for paper. Clatsop county regards its supply of hemlock as one of its most valuable resources, as this character of timber, greatly in demand, grows in abundance here.

A Giant of the Forest.

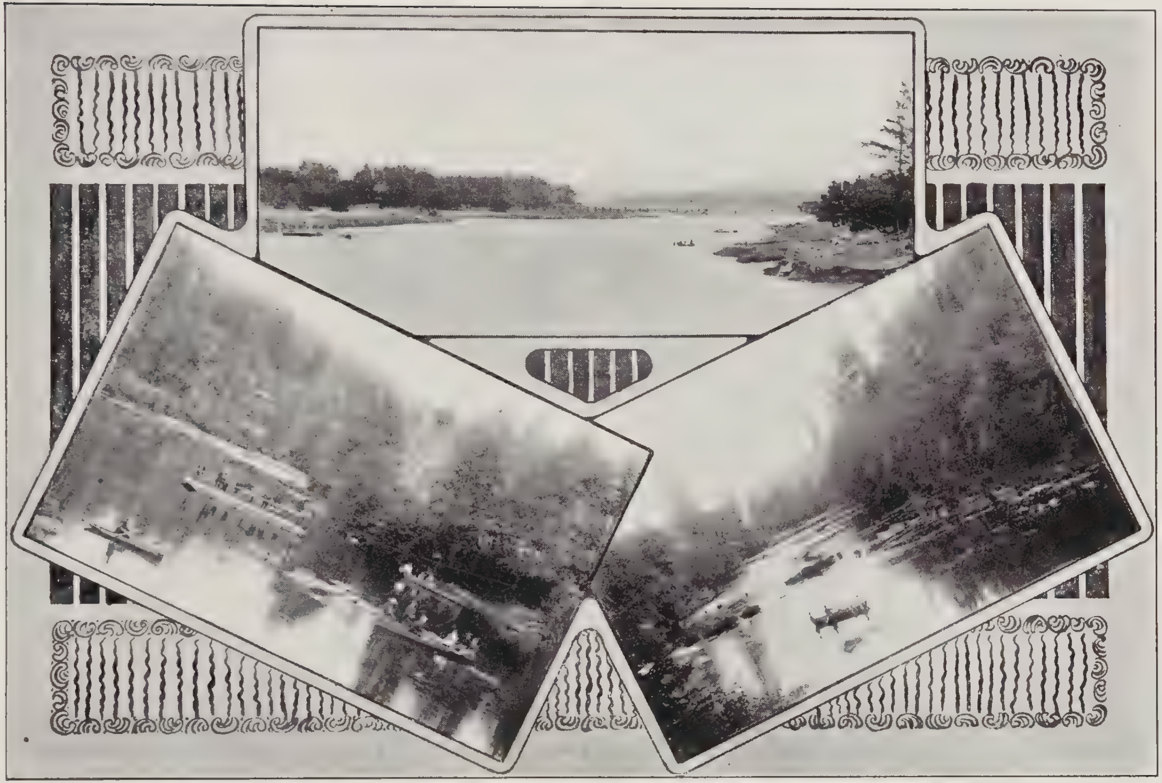
MILLS AND MANUFACTURING

ALTHOUGH manufacturing is as yet in its infancy in Astoria, more than 4,300 persons are employed in the institutions now doing business here. The salmon industry employs by far the greatest number of persons, but the seasons extend over a period of only about six months, and at other times those engaging in it follow other lines of pursuit. The lumbering industry, including box factories, barrel factories, etc., is rapidly assuming proportions, and will, within a few years, outrank the fishing interests.

Astoria wants more manufacturing concerns, and offers the very best inducements to capitalists. Here are to be found unexcelled sites, with the advantage of both rail and water connection, and the intending investor in Western properties should look over the Astoria situation. Sites can be secured at very low prices, and in many instances for the asking. The Astoria Chamber of Commerce, or Astoria Progressive Commercial Association, will gladly arrange for the purchase of sites for any investor who makes the request.

More than $3,000,000 is invested in manufacturing plants here, while the value of the yearly product exceeds $6,500,000. In all, 4,341 persons are employed, receiving annual wages that aggregate $2,059,600. The following table of manufacturing statistics was carefully compiled by a representative of the commercial organizations:

Industry.	Capital Invested.	Val. Yearly Product.	No. Employes.	Amt. Annual Wages.
Lumber	$ 765,000	$2,995,000	827	$ 583,800
Salmon	$2,036,000	2,590,000	3,215	1,302,000
Iron, brass and tin	164,000	708,000	229	115,800
Beer and ice	225,000	130,000	20	18,000
Miscellaneous	100,000	175,000	50	40,000
Totals	$3,290,000	$6,598,000	4,341	$2,059,600

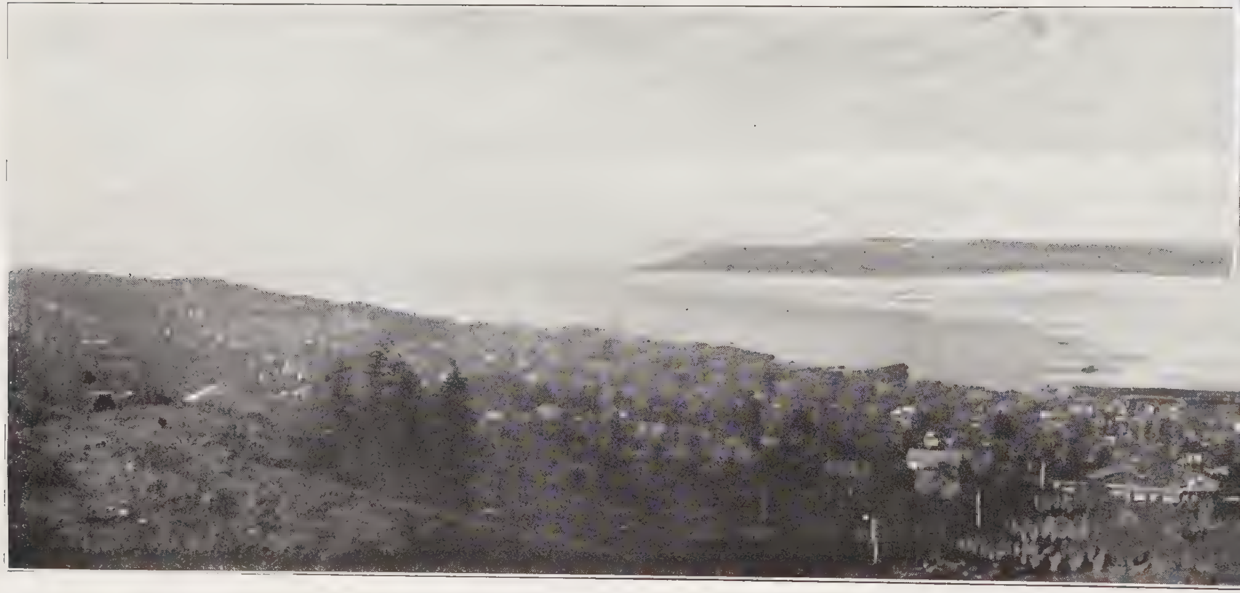


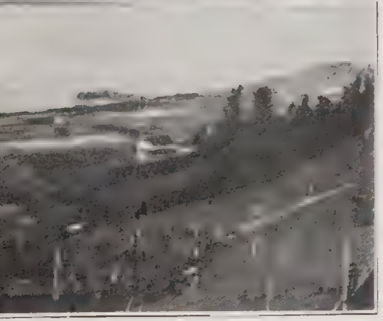
Necanicum River, Near Astoria.

PICTURESQUE ASTORIA.

ASTORIA has aptly been termed "The Venice of America." The main business portion of the city is built over the waters of the Columbia river, and between the streets, at almost any time, one may see scores of small craft. To the inland visitor the spectacle is a unique one, and one that will continue to attract notice until such time as a great seawall is built along the entire waterfront and the present day Venice-like area filled in.

From the magnificient residence plateau that rises to commanding height back of the city, an entrancing view is presented. The Columbia river, seven miles in width at Astoria, flows past the city to the sea, a distance of ten miles, and is ever a fascinating sight, whether quietly rippling in the calm of a summer day or

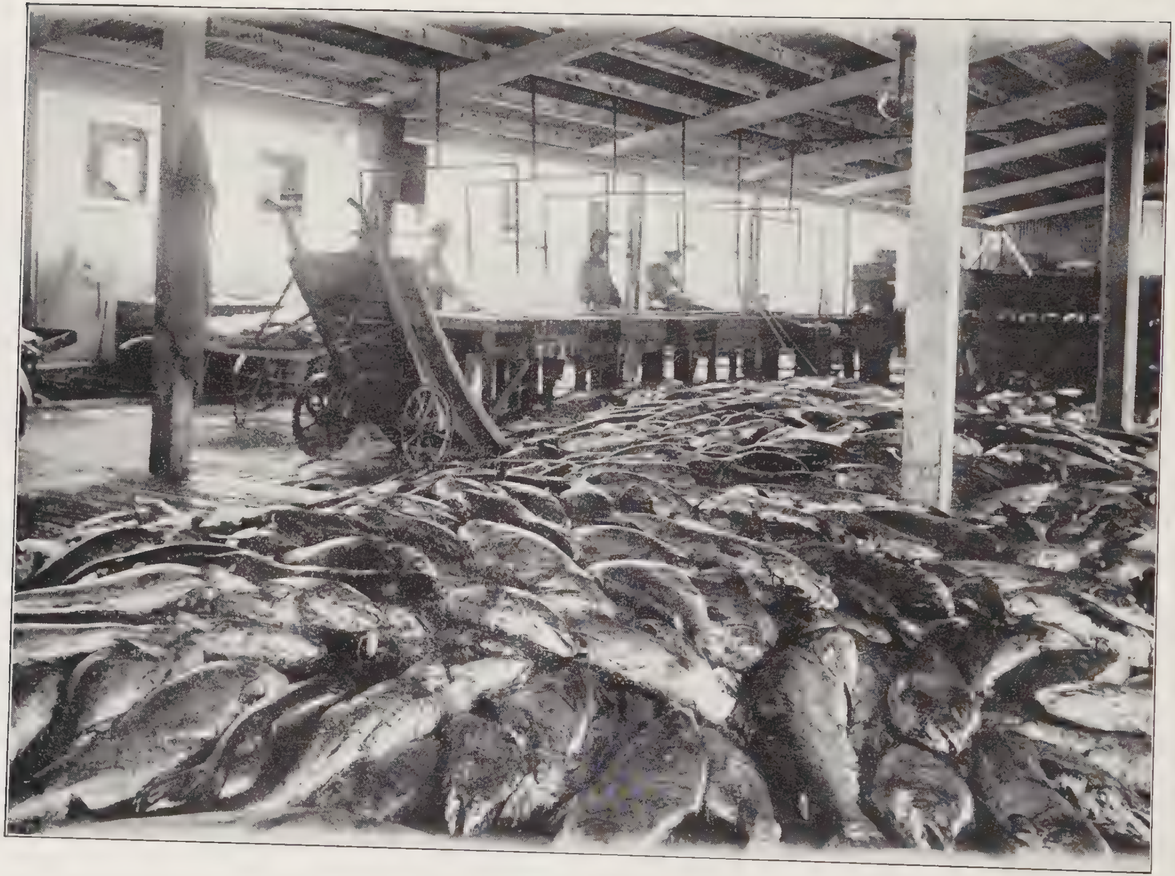




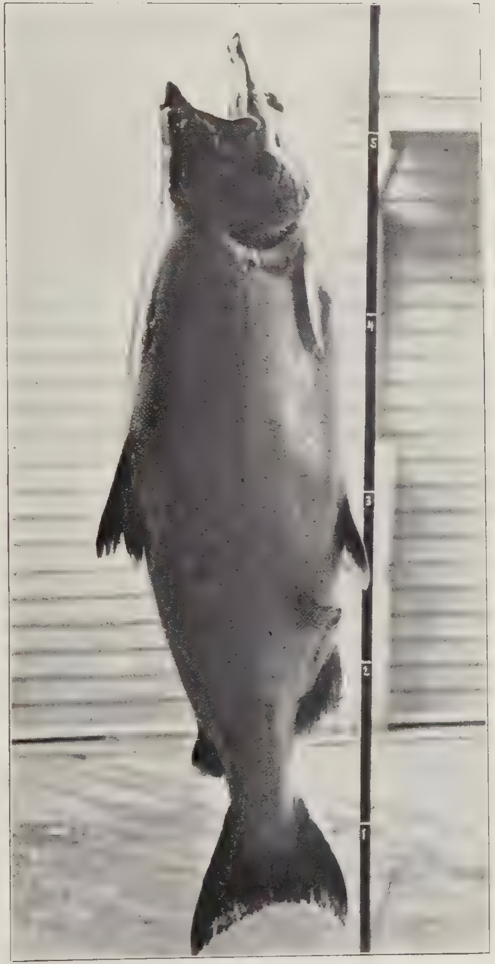
lashed to fury by angry winds. On the broad bosom of the river hundreds of fishing boats can be seen during the spring and summer months, their pretty white sails glistening in the sunlight as they race hither and thither, while here and there steam vessels of every size, from the miniature launch to the mammoth ocean steamship, stand out more prominently and lend additional charm to the scene. Nor were more glorious sunsets ever witnessed than those which characterize the close of the day at the mouth of the great Western river.

Back of the city, from the plateau, a birdseye view of rare grandeur is presented. Winding away to the south, the Lewis and Clark and Youngs rivers take their course through pretty valleys, while heavily timbered hills rise on each side, Saddle and Green mountains towering above all. To the west can be seen the grand old Pacific, whose roar is oftimes heard in the city. With the beauties of nature the visitor stands enraptured, for the view from the plateau is an inspiring one.

On the front page of this book is shown a picture of Astoria looking east, or up the Columbia. Tongue Point, one of the most picturesque spots in the West, can be seen in the distance.



Astoria Salmon Cannery Scene.



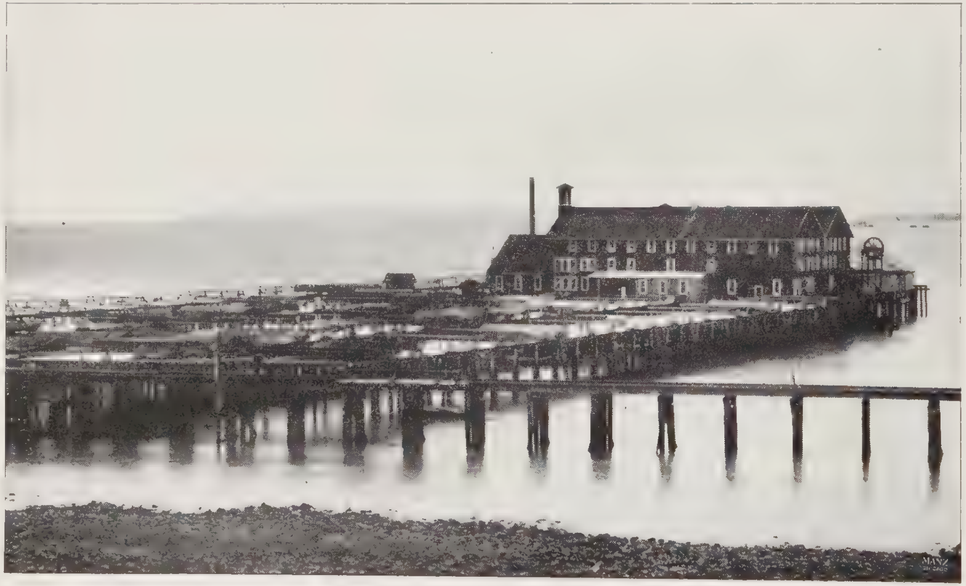
SALMON INDUSTRY.

ASTORIA owes its existence largely to the great salmon industry of which it is the center. Year after year the Columbia river has given up its wealth of fish, and in the past 25 years has yielded $75,000,000, nearly all of which has been placed in circulation in this city. Where other crops have failed, the salmon supply has maintained its average of production, and in this respect can be classed as one of Oregon's greatest resources.

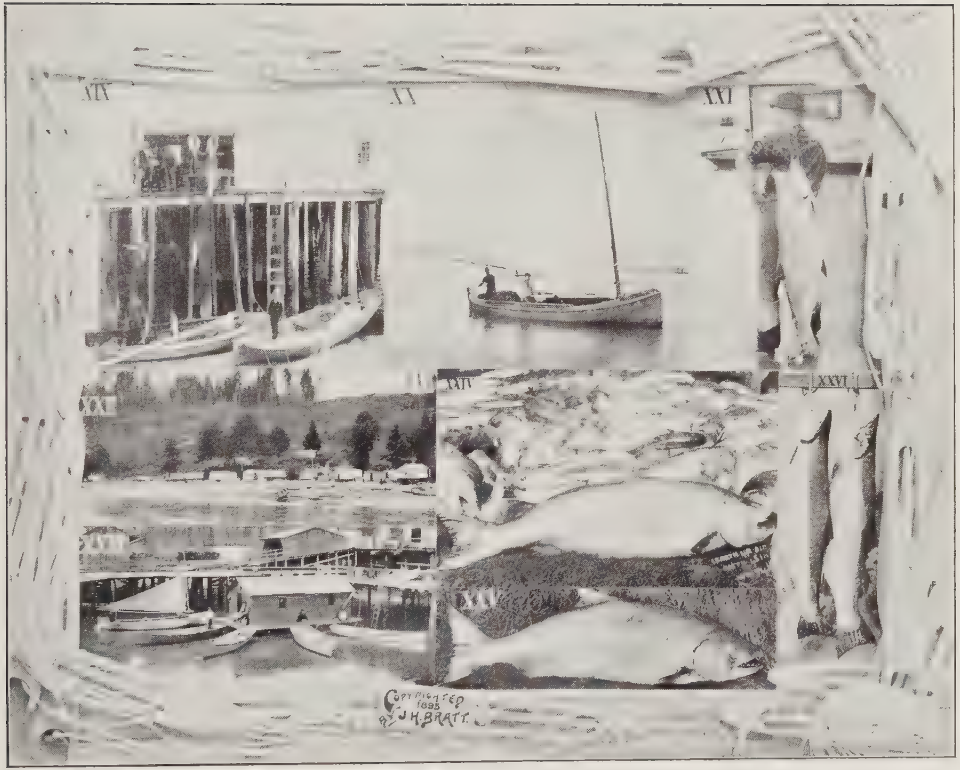
The canning of Columbia river salmon was first attempted in the 60s, when experiments were successfully conducted. The industry did not reach proportions until 1880, when it was extensively engaged in. Since that year it has been the principal occupation of fully one-half the people living near the mouth of the Columbia river, and, with the present well defined method of artificial propagation, or hatching, it will grow in volume with each year and become, with the lumbering, the greatest industry of which Oregon can boast.

The annual salmon yield of the Columbia river is valued, approximately, at $3,000,000. The spring fishing season lasts only four months—from April 15 to August 15—so it means $750,000 monthly to those interested in it and those who live at and near the seat of the industry. The farmer must engage in a great deal of preliminary work in order to harvest his grain crop, but the fisherman's crop is ready for him each year, the only outlay required of him being a small license fee for the purpose of propagation. The soil "gives out" after years of planting, but the river is always productive, and its "crop," with the intelligent aid of man, can be made greater each season. For many years the salmon dealers of the Columbia river confined themselves to the canning process, and Columbia river salmon became famous the world over. Five or six years ago the idea was conceived of pickling salmon in mild brine and shipping them to foreign markets to supply the demand for smoked fish. This departure proved happily successful, and during the season just closed over 3,000,000 pounds of fish were thus prepared, the market price averaging 35 cents a pound, or a total value of over one million dollars. The cold-storage business is growing to great proportions and gives promise of outstripping the canning industry. Not only has the new process made chinook salmon more valuable, but it has also greatly increased the market price of the steelhead salmon, which brought only 2 cents a pound at the canneries a few years ago. Now steelheads are frozen for the fresh-fish markets of the East, where they are regarded as a luxury, selling for 15 to 25 cents a pound. One and one-half million pounds of steelheads were frozen during the season of 1902.

The salmon industry gives employment to about 5000 persons, of whom 3000 or more are engaged in the catching of fish. It distributes in four months $1,500,000 among the people living in and adjacent to Astoria, besides giving employment to persons engaged in the manufacture of cans and boxes, and otherwise assisting different lines of trade. Fishing operations are practically confined to 90 days, during which the Columbia river yields wealth enough to make



FISHERMEN'S CO-OPERATIVE PACKING COMPANY.



Salmon Fishing Scenes.

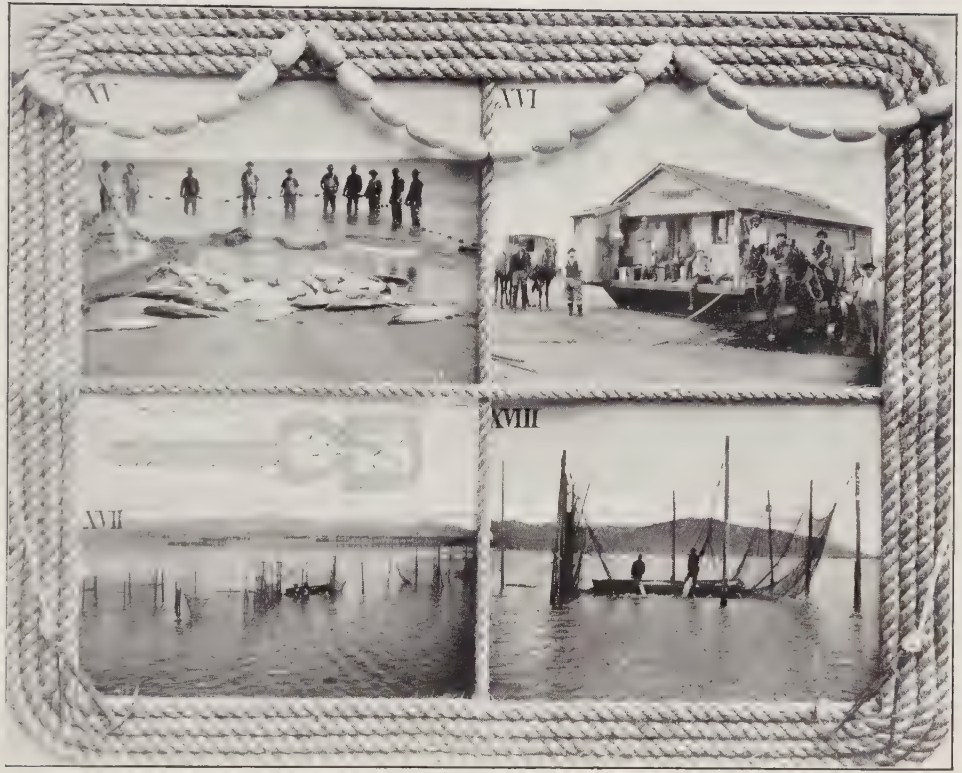
Astoria a live city the year around. Every branch of trade feels the effect of the industry, and the amount distributed for raw material and labor is about $150 for every man, woman, and child living in this county.

The salmon industry is under the supervision of the state board of fish commissioners, consisting of the governor, secretary of state and state treasurer. The actual enforcement of laws and propagation of salmon rests with the master fish warden and his force of deputies and superintendents.

The method of artificial propagation has proved highly successful. Until this means of maintaining the supply was conceived, the industry declined, but it is now increasing in volume every year, and will soon reach much greater proportions than at any time in the past. Both Oregon and Washington maintain state hatcheries, and the United States fish commission is also engaged in the artificial propagation of salmon, hatcheries being located at the natural spawning waters of the salmon. Here the female salmon are taken in traps and the eggs removed; the spawn is placed in troughs and artificially hatched. When

SCHMIDT'S COLD STORAGE PLANT.

SANBORN-CUTTING PACKING CO



FISHING SCENES ON THE COLUMBIA RIVER.

they are large enough to care for themselves, the young fish are placed in the rivers, and when they return from the ocean four years later are fine, large salmon, weighing from 20 to 50 pounds.

Some idea of the possibilities of artificial propagation can be gained from the following statement of facts: At present about 1,300,000 salmon are taken from the Columbia river during what is known as the "spring" season—April 15 to August 15. Those fish are worth $1,500,000. During 1901 more than 58,000,000 young salmon were artificially propagated at the state and government hatcheries of the Columbia river. If only 5 per cent of the output returns to the river and is taken, the volume of the industry will have been doubled; and hatchery experts stoutly maintain that fully 20 per cent of the hatchery fish will return. In 1895, 5,000,000 "fry," or hatchery fish, were turned out of the Clackamas hatchery, 5000 having first been marked by removal of the adipose fin. The fish were due to return to the river in 1899, when fishermen kept a sharp lookout for the marked fish and made frequent reports to the fish commission. About 1,000,000 salmon were taken that year, and, from the number of marked fish caught, it was evident that practically the entire supply was the result of the artificial propagation method. It is believed that the salmon industry, now averaging about 350,000 cases, will be increased to 1,000,000 cases within five years. The hatchery output for 1902 is problematical, but a statement of the 1901 output of the Columbia river and its tributaries appears in Fish Warden Van Dusen's report, as follows:

OREGON HATCHERIES.

Salmon river	2,787,900	
Clackamas river	4,766,200	
Grande Ronde river	7,532,300	
Snake river (Swan Falls)	457,000	
		15,543,400

U. S. FISH COMMISSION HATCHERIES.

Little White Salmon River	15,385,232	
Lower Clackamas river	8,648,309	
		24,053,541

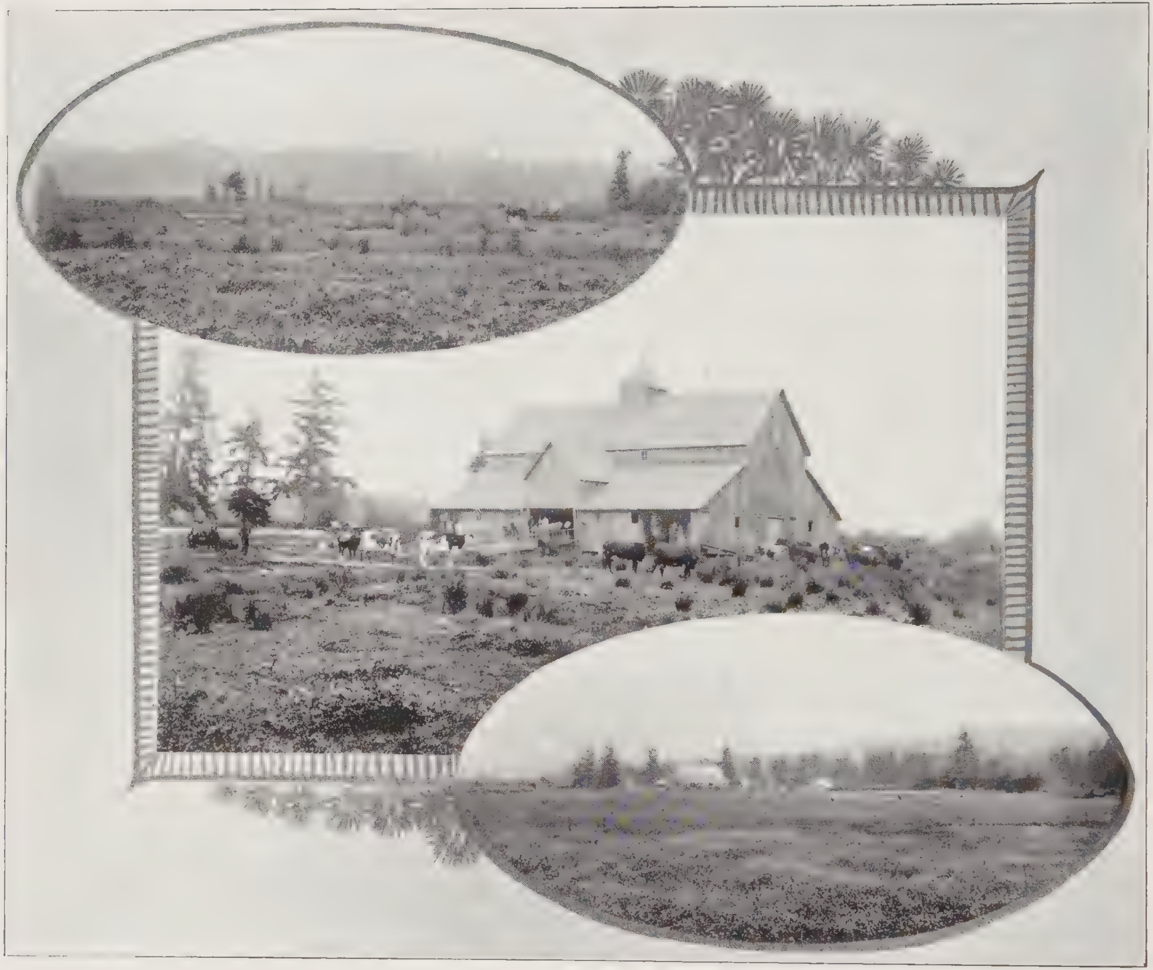
WASHINGTON STATE HATCHERIES.

Brought Forward		24,053,541
Kalama river	7,422,000	
Chinook river	1,868,000	
Wenatchee river	4,885,000	
Wind river	1,505,000	
Methow river	2,665,000	
Colville river	91,000	
		18,436,000
Grand total		58,012,941

It is estimated that the output for 1902 will equal if not exceed these figures. If one-tenth of these fish return to the river, the industry will have been increased four times and, instead of meaning $3,000,000 to Astoria, will mean $12,000,000.

THE FISHERMEN'S PARADISE.

The accompanying illustration depicts a trout-fishing scene near Astoria. The catch was made by three anglers a short distance from Seaside and was the result of three hours' fishing. All the streams of Clatsop county abound with trout, and this region is a veritable fishermen's paradise.



O. J. Peterson's Dairy Farm.

THE DAIRYING INDUSTRY.

DAIRYING in Clatsop county is in its infancy, and very few dairymen realize the natural advantages of this country. The climate, coupled with the productiveness of the soil, makes it an ideal district for production of butter and cheese; dairymen are taking more interest in the breed and care of stock. With the genuine butter cow, such as few here have as yet, much better results may be obtained, though even now the luxurient pasturage enables the cows to furnish an abundance of rich milk, with more than an average of butter fat. A modern equipped creamery is in operation in Astoria, furnishing the farmers a ready sale for their cream, at an average price for

CLATSOP COUNTY DAIRYING FARM.

the year of 22½ cents per pound for butter fat; and the cows yield, under good care, about 225 pounds of butter fat per year. There is general interest in increasing the dairy business; many of the dairymen are preparing to enlarge their herds, and new dairies are being started. Ever-growing grass and the best market in the world make this an inviting field for those who understand the care of cows.

"For winter food we can grow all kinds of grasses for silage (except corn), and an abundance of them; while root crops, such as rutabaga, turnips and beets, grow to perfection."

Thus summarizes Mr. A. Skyles, of the White Clover creamery, of Astoria, who is thoroughly acquainted with dairying here and elsewhere.

Professor Thomas Shaw, of Minnesota, among others of eminence in this line, visited Astoria and vicinity several years ago and paid a glowing tribute to the remarkable climate and adaptations of soils and forage plants for dairying purposes. Dairying has been developed but little as yet, the country adjoining Astoria supplying scarcely more than enough for local markets, although the Astoria creamery has done considerable exporting. This backwardness has been due to two main reasons—one, that other industries here, particularly the immense salmon-packing business, and now lumbering, together with steamboating, have offered greater inducement to the careful and thrifty class to which dairymen naturally belong, and the other that the dairy lands have in the past been difficult to prepare for pasturage, in consequence of which dairymen have been attracted to other forms of farming, especially to grain raising in Eastern Oregon, Washington and Idaho. It may be added, too, that dairying is a special business, requiring exact training and no small science as at present conducted; and the ordinary agriculturalist does not appreciate a good dairy opening, even if he sees it.

All the Oregon coast country, especially that near the mouth of the Columbia river, is very similar to the great dairying sections of Europe, such as Denmark, Holland and the Channel islands. The winters, however, are milder and the summers dryer. As stated by Mr. Skyles, grass is abundant, or at least fresh, even in winter, and, although not affording a supply of feed for cows giving milk, still contributes very much toward the health of the animals and the quality of the butter. The lands best adapted to grass-growing are the tidelands, which are river bottoms adjoining the Columbia or its branches, and overflowed by the highest tides. These lands may be reclaimed by diking, at an expense of about $10 per acre. By diking large tracts by machinery—with steam dredges—the expense may be reduced, and more substantial dikes erected. One acre of tideland has been shown to be ample for keeping one cow the entire year. There are still in Clatsop county about 20,000 acres of tideland to be diked, much of it being easily cleared after the diking is done This is no experiment, as many of the best dairy farms have been made on diked tideland. The following is a careful statement recently published with reference to dairy opportunities in this district:

"Clatsop county contains over 700,000 acres of land. There are 22,000 acres of tidelands and 150,000 acres of bench and hill-land, all of which is best for grazing cattle. Clatsop county has 2500 acres of diked land and 15,000 acres of bottom land. The diked land produces an average of four tons of hay to the acre.

WHERE GRASS IS KING.

"The Lewis and Clark district (at present the dairying center of the county) has a number of prosperous farmers and not a mortgage in existence.

"As an example of the merits of the lands, one farmer maintained 34 head of cattle and five head of horses on eight acres of meadow-land and 50 acres of grazing land.

"Another example of the fertility of the soil shows that, on a strip of land 35x85 feet, 4338 pounds of cabbage were raised in one season.

"On a meadow of not over eight acres and 35 acres of grazing land, sufficient hay was raised to maintain 22 head of stock, while several extra tons were marketed.

"A tideland meadow will yield four to five tons of hay per acre in one crop.

"The revenue derived by one farmer on the Lewis and Clark (which is only a sample of what others can do) is from $1400 to $1550 per year. This illustration is from a dairy farm of not over 15 cows and 34 acres of land.

"On an average piece of Clatsop county land cattle graze the year 'round.

"In the Walluski district a farmer raised 100 tons of hay on 65 acres of diked tideland, pastured 29 cows besides, and made the same record for 15 years without any fertilizer, as well as raising splendid oats and vegetables.

"The city affords a market for all food products.

"Undiked land sells from $7 to $30 an acre; diked land averages $100 an acre. The average cost of diking land is $10 an acre."

Other lands equal, and in some respects superior, to tidelands are the bottoms of the small river valleys. These are reckoned to aggregate 15,000 acres or more. Including all the small bottoms and flats of about the same character, overflowed more or less in winter, the amount would be double or treble that figure. In the Nehalem valley there is the largest amount of such land, being alluvial and sandy to some extent, and excellent for vegetables as well as grass. Uplands, including level stretches above the small rivers, and benches aggregate not less than 150,000 acres of farming lands. The production of grass and hay is not so great per acre, but the quality is even better. Clovers, especially alsike and red clover for ensilage, make heavy growth. The universal pasturage is white clover, with more or less wild red top, wild red and yellow clover and other native grasses. Orchard grass is very prolific on both the bottom and bench-lands.

The average income per year from a dairy cow, well kept, is about $50. Any industrious, thrifty family, understanding the care of cows, and willing to attend to the business day by day, year in and year out, may easily, therefore, on a tract of not more than 40 acres, and a good part of that woodland, expect a return of $1000 to $2000 per year—enough to provide a comfortable home, all the necessaries and most of the comforts of life, together with books, education and more or less travel. In a district made up of such homes, all the advantages of the thrifty community may be enjoyed, with schools, libraries, churches, roads and rural delivery, and all that the business or professional man may provide his family in town. No life in the world offers more certain advantages than that of the dairyman, in such a country as that within 10 to 30 miles of Astoria, where there is never a failure of crop, where the climate is healthful and equable, and where prices are better for dairy products than in any other part of the United States — a condition which, owing to the large amount of other business, fishing, lumbering, mining and transportation, in immediate and surrounding communities, will always prevail.

Dairy Scenes in Clatsop County.

PLACE FOR SMALL FRUITS.

CLATSOP county is particularly adapted to the growing of small fruits. Nature here provides bountiful rains and fertile soils, and in this section fruit lands can be bought at low figures at points not more than 10 miles distant from the city, and within an hour's drive of the railroad.

A fruit farm located nine miles from Astoria is an example of what can be done here if proper enterprise is displayed. The farm in question was bought for a small sum and was considered one of the poorest tracts in the neighborhood. Now after four years' work, the place is a lovely garden, producing a large amount of fruit and berries. On this farm two crops of strawberries are raised each year from the same plant. The first crop brings the usual market price of about 7 cents a pound, while the second, which is available during the months of August and September, brings 20 cents a pound. Blackberries and all small fruits grow in great abundance.

The uplands of this county are best suited to fruitraising. The land is held at $10 to $35 an acre, the last-named figure being for the very choicest tracts. All kinds of fruits do well. Small fruits can be relied upon, and there is an excellent opening here for fruitgrowers.

The experiment of raising asparagus is to be tried now. The land here is fully up to that of California, and it is thought a large and profitable industry will be built up. Land for the raising of asparagus can be bought here for $7 to $100 an acre, whereas California asparagus lands are worth $1,000 per acre.

Requests for information regarding the value, location and adaptability of lands of all kinds will receive prompt attention if communications are addressed to the Astoria Chamber of Commerce or the Astoria Progressive Commercial Association, Astoria, Ore.

ASTORIA'S COMMERCE.

THE commerce of the Columbia river will some day make Astoria the principal seaport of the Pacific coast. Situated where one of the longest rivers empties into the broadest ocean of the world, this freshwater port embraces the Western terminus of a rail line that traverses the Western continent and connects with steel bands the Atlantic and Pacific oceans. Into Astoria harbor come annually from the seaports of the world more than 500 vessels, steam and sail, with an aggregate carrying capacity of 50,000 carloads.

The Columbia river affords the only natural grade from the greatest wheat producing section of the country to the sea, and within a few years this route must, of necessity, be utilized by all transportation lines, in the interests of economy. Advantageously located at the mouth of the Columbia river, where the largest ships of the world find safe moorings, Astoria is the natural exporting point of the output of the Inland Empire. This fertile basin produces annually between 30,000,000 and 50,000,000 bushels of wheat, 10,000,000 bushels of oats, 2,000,000 bushels of rye and barley, 6,000,000 bushels of potatoes and 2,000,000 tons of hay. These figures convey some idea of the volume of commerce that accrues from the grain-producing district. Seventy-five billion feet of timber stand in the forests tributary to Astoria, and, although the lumbering

A. & C R. R. DEPOT.

industry is still in its infancy, scores of cargoes are exported annually. Vast coal deposits abound near the city, and the fisheries of the Columbia river constitute an important feature of the export trade.

No other Pacific coast port is as close to the Orient, and the vast trade of China, Japan, Siberia and the Pacific islands, now enjoyed in part by the Columbia river, will soon center almost entirely at this great entrepot. The building of the isthmian canal will give additional impetus to Astoria's commercial supremacy and place her in the front ranks of the world's seaports.

Str. Columbia, Plying Between Astoria and San Francisco.

Towing in Astoria Harbor.

The importance of Astoria harbor is realized by the United States government officials, and congress has already spent millions of dollars in improving the mouth of the Columbia. A great jetty, more extended mention of which appears elsewhere in this book, has been built, and dredging operations have been and are still being carried on in the harbor. The latest appropriation made for the jetty—$2,100,000—will provide a depth at the harbor entrance of 35 to 45 feet, which will be ample for the largest ships that sail.

The Floating Palace, T. J. Potter.

Fresh water is one of the greatest advantages enjoyed by Astoria harbor. Vessels arriving after sea voyages are covered with barnacles and other growths, and in salt-water ports must be placed on drydocks to be cleaned. In this fresh-water harbor a natural cleansing takes place, and the vessels are prepared without expense for their return voyages. The following statement of the shipping and foreign commerce of Astoria for the year 1901 is taken from the United States customs house records:

UNITED STATES QUARANTINE STATION.

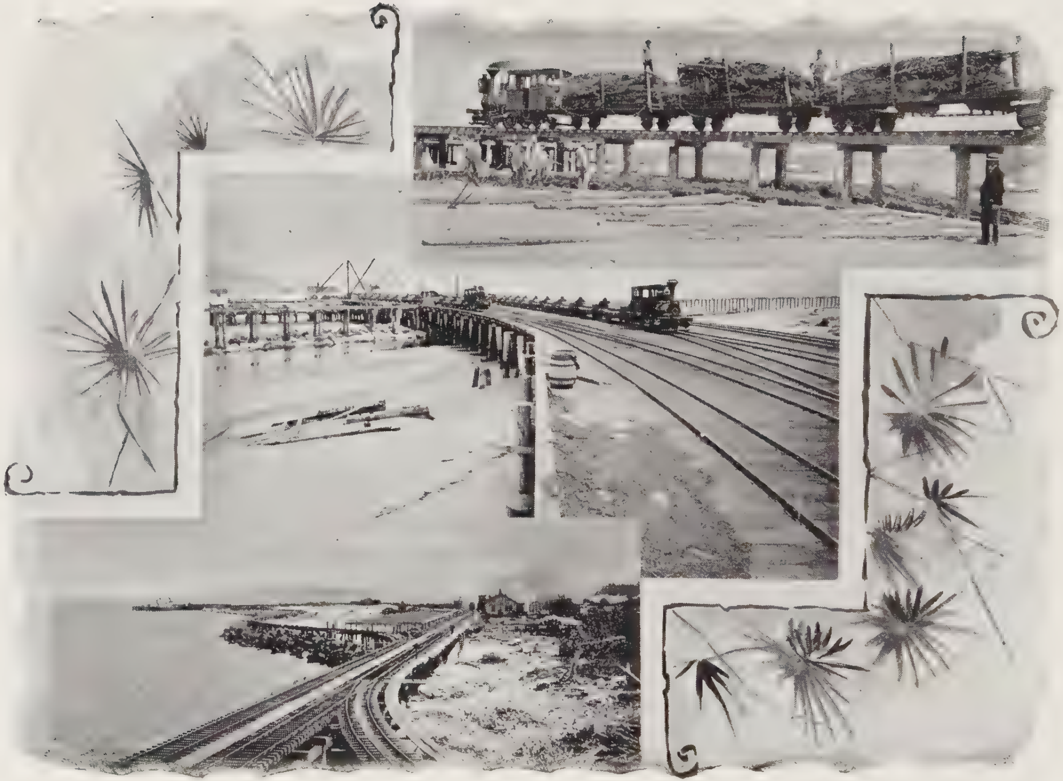
	NO. VESSELS.	TONNAGE.
Entered from foreign ports	170	315,322
Entered from domestic ports	364	355,484
Totals	534	670,806

	NO. VESSELS.	TONNAGE.
Cleared for foreign ports	178	337,384
Cleared for domestic ports	356	333,422
Totals	534	670,806

Foreign shipments of principal exports for the year 1901 were as follows:

	QUANTITY.	VALUE.
Wheat (bushels)	13,760,555	$ 8,234,268
Flour (barrels)	599,542	1,686,815
Lumber (feet)	52,816,987	604,846
Sundries, including cotton, machinery, barley, salmon, etc		1,151,613
Total		$11,677,542

A Columbia River Steamer.



Building the Jetty

JETTY AND HARBOR.

THE Columbia river jetty is another tribute to the genius of Captain Eads, the author of this method of harbor improvement. It extends four and one-half miles into the ocean. The government has expended $2,000,000 on its construction, and at the last session of congress an additional $2,100,000 was appropriated for its completion. When this magnificient structure is completed, it is predicted by imminent engineers that a depth of 40 feet at low water will be obtained. The jetty, so far as built, demonstrates the ability of such a jetty to secure ample channel depth. The original estimated cost was $3,800,000; to date of January 1, 1902, $2,200,000 had been expended. The channel was deepened from 18 to 31 feet at mean low water, with a seven foot rise of tide. The jetty did not reach out to the bar by three miles, the outer end being, at the date named, that distance within the bar. The United States government has been so well satisfied that 40 feet channel depth can be secured that the sum of $2,100,000 named has been appropriated to extend the jetty out to the bar and secure the full action due to such jetty construction. As yet there has hardly been more than half a jetty, owing to the work having been stopped so far short of the bar. This jetty has made available the only route by which the Pacific ocean can be reached without crossing a range of mountains 5,000 feet high.

Commerce, like water, always seeks the gravity route to the sea.

No one who looks intelligently upon a map of the Pacific Northwest can fail to discern the commanding position occupied by the city of Astoria, at the mouth of the Columbia river.

The New York Tribune predicted a few years ago "that the coming century will see the bulk of the world's commerce on the Pacific ocean, and the mercantile importance of its shores will henceforth be incomparably greater than ever before in the history of the world."

Thomas H. Benton, pending the exciting debate on the Oregon question in 1846, in the United States senate, near the close of his great speech favoring the admission of Oregon into the Union, uttered this prophecy, soon to be fulfilled. Pointing with his finger toward the West, he dramatically exclaimed: "That is the way to the East, via the mouth of the great Columbia river."

C. P. Huntington, late president of the Southern Pacific Railroad Company, in an interview said: "The Butte and Montana country are naturally tributary to the mouth of the Columbia river. They are on the westward down grade to the sea, and commerce in the long run follows lines of gravity. You cannot overcome gravity, for it is too big a factor even in the commercial life."

S. H. H. Clark, for many years president of the Union Pacific railroad system, said: "Their system of roads to the Pacific ocean will never be complete until they extend their lines in Oregon and to the harbor at the mouth of the Columbia river."

William H. Seward, secretary under Mr. Lincoln's administration, during his trip around the world, stated, a quarter of a century ago: "The Pacific ocean, its shores, its islands and the vast regions beyond, will soon become the chief theater of events in the world's great hereafter."

Who controls the commerce of the Pacific will control the trade of the world. The eyes of the nation are turned towards the Pacific Northwest, and the Columbia river furnishes the down-grade outlet that makes possible all this development.

It is America's natural gateway to the Orient.

The United States government realizes fully the importance of Astoria and the mouth of the Columbia river, for since the construction of the jetty, engineers and other officers of the government have been employed constructing fortifications for the harbor which are to be impregnable. Fort Stevens, on the south side of the river, is garrisoned and being made one of the strongest fortifications of the nation. Fort Columbia, at Scarboro Head, fronting the entrance of the river, has recently been erected, with large disappearing guns, and Fort Canby, on the north shore, is soon to be enlarged and modernized.

The engineers have also been asked to select a site with the view of building a dry dock for the accomodation of future commerce.

The government has just completed a first-class quarantine station near Astoria.

The following excerpts are taken from the editorial columns of the Daily Oregonian, the leading and most influential paper on the Northwest coast. It says:

"The jetty makes Astoria a splendid seaport—no finer in the world. There is an open, straight, wide and deep channel through which any vessel may enter as easily as the Straits of Fuca, and more easily than the harbor of San Francisco or New York. Inside there is deep water frontage ample for the purposes of the greatest commerce. The destiny of Astoria is that of a fine city. There are great resources near it, only waiting to be appropriated and developed. There is abundant timber and fine agricultural land, and the promise of valuable and extensive coal discoveries is flattering. Capital must soon see these advantages and it cannot be long until railroads will penetrate the country back of Astoria, open there the great stores of nature's wealth and rapidly transform that into a rich and handsome city. Though this portion of the state has been slow of settlement, yet in many respects it is the richest of all parts of the state in the resources that capital only can rapidly develop; and capital must soon see its opportunity there."

In another editorial, the Oregonian says: "Astoria possesses a harbor, landlocked and large enough for all the ships afloat, right at an open sea. It lies at the mouth of a river that drains an empire and is surrounded by a country, yet undeveloped, which possesses more wealth than the most sanguine ever dreamed coming out of the Klondike."

Seaside Bathing Resort, Near Astoria. Reached via A. & C. R. R.

HEALTH AND CLIMATE.

THE physical conditions existing in the city of Astoria and in Clatsop county are such that, from the standpoint of health, it is an ideal home. The health of a community is often the index of its prosperity. A community in which a large per cent of the inhabitants are constantly sick, thus unable to earn wages, and the wages that are earned must be paid for medicines and medical services, is one in which the people seldom accumulate a competence. To the contrary: A community in which the people as a rule are in a high state of health, active and energetic, is usually one in which the people will soon acquire a full competence of wealth, and live happily ever afterward.

The conditions existing here, that so strongly contribute to the perfect healthfulness of this community, are easily understood. The subsoil is a clayey material that absorbs but little moisture. The surface of the land is sufficiently precipitous to insure perfect drainage. The summer temperature, averaging about 70 degrees, is not sufficiently high to promote the formation of that dread of most localities where vegetation is rife, malaria. All scientists agree that, for the formation of miasmatic poisons, high temperature is absolutely necessary. Another factor in the production of the conditions where malarial conditions can not exist rests in the fact that throughout the summer season the prevailing, and, in fact, constant wind is thenorthwest trade wind, coming directly from the surface of the Pacific ocean, where for thousands of miles, perhaps, it has been absorbing the chemicals phosphorous, chlorine, iodine and others of like character, and this supercharged air, as it passes over the land, neutralizes or kills any poisonous substances that may have formed. These conditions render malarial diseases an impossibility, and, in fact, that class of diseases is absolutely unknown.

The mild summer temperature and the pure air make that large class of diseases that depends upon high temperature also unknown. A case of cholera infantum, sunstroke, dysentery, etc., was never known in this county or city. An illustration of the purity of the atmosphere, and the mildness of the temperature, that will prove to strangers the above facts, is as follows: Local butcher markets never use ice to preserve their supply of meats, yet a tainted piece of meat is never found. The winter temperature is almost as mild as is that of summer; in the win-

Near Astoria. Reached Only by the A & C. R. R.

ter season the temperature rarely falls below 40 degrees. This mild winter temperature seldom produces that large class of diseases that depends upon cold as an exciting cause. A few cases of pneumonia and a few cases of bronchitis are met with each winter, but they are rare, and of very moderate severity.

In the winter season, the prevailing wind is a southwest counter trade wind, blowing over the surface of the "Japan current," which current makes it mild and equable. It, as with the summer breeze, is also impregnated with the ozone of the ocean, making it extremely pure. The purity of the prevailing winds renders the existence of an epidemic of disease next to an impossibility. An epidemic of such diseases as diphtheria, scarlet fever, erysipelas, smallpox, or any other disease that depends upon what physicians term "zymotic," or poisonous conditions, was never known in this locality. An occassional case of each of these diseases is met with in the practice of the physicians, but they never assume an epidemic or malignant form. In surgical conditions, such as wounds and surgical operations, that terror of most localities, "blood poison," is extremely rare. The conditions do not exist here to produce it, and if the conditions did exist, the purity of the ocean breeze, charged with anti-septic chemicals, would neutralize them.

In the summer season the sky is clear, nearly every day and night. Once or twice each month there are light showers, and then the sky again assumes its exquisite clearness. In the winter season the sky is clouded and a gentle rain falls, during from one-third to one-half of the days. The other portion of the time the sun shines and the weather is fine. The rain that falls is of that gentle character, so much so that farmers and mechanics seldom lose a day from work. Electrical or thunder storms are unknown. No cyclones or blizzards make life a burden. The writer has never known the wind to attain sufficient velocity to unroof a house. Violent storms may rage a few miles out at sea, but they do not reach inland to any appreciable extent.

Everything considered: The equable temperature, not varying more than between 40° in the winter and 70° in the summer; the pure atmosphere, the prolific soil and rich products; the extreme degree of healthfulness, freedom from extreme heat, and cold, and storms, and cyclones, and epidemic diseases, make Astoria and Clatsop county the ideal home. The most fastidious could not demand or expect more from bountiful nature than she has bestowed upon this favored locality.

WEATHER STATISTICS

Meteorological summary for Astoria, Oregon, obtained from a record of nine years of the United States Department of Agriculture, weather bureau :

MONTH.	Mean Temperature.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean Greatest Daily Range of Temperature.	Mean Least Daily Range of Temperature.	Mean Precipitation, inches.	Prevailing Wind.	Average No. Clear Days.	Average No. Partly Cloudy Days.	Average No. Cloudy Days.	Average No. Rainy Days.
January	40.5	45.2	35.7	18.2	4.0	10.40	E.	6	5	20	22
February	42.2	47.4	37.0	18.9	4.9	7.23	SW.	6	8	14	18
March	47.0	53.2	40.8	23.7	5.6	6.18	SW.	4	9	18	20
April	49.5	56.0	43.0	24.1	6.1	5.01	SW.	5	9	16	17
May	55.5	62.8	47.8	27.3	6.2	2.93	W.	9	10	12	12
June	58.3	64.9	51.6	26.0	6.6	2.98	W.	7	9	14	14
July	61.4	68.1	54.7	25.7	5.8	1.21	W.	12	10	9	8
August	61.8	68.2	55.4	23.2	6.9	1.30	W.	12	8	11	6
September	59.6	66.0	53.1	23.6	5.7	4.23	SW.	12	7	11	12
October	54.9	60.6	49.3	18.8	4.6	5.91	SW.	8	8	15	18
November	47.6	52.2	42.8	16.9	4.1	8.88	SW.	6	4	20	20
December	44.2	48.6	39.8	15.0	3.9	11.43	E.	4	5	22	23
Avgs., or Tot'ls	51.8	57.8	45.9	21.8	5.4	67.69	SW.	91	92	182	190

Comparison of the yearly temperature, precipitation, etc., of Astoria, Oregon, with prominent cities; furnished by the United States weather bureau :

CITIES.	Mean Temperature.	Total Rainfall.	No. Rainy Days.	No. Clear Days.
Astoria, Ore	53.2	65.03	168	103
Atlanta, Ga	61.1	54.75	111	135
Baltimore, Md	55.8	62.35	164	100
Boston, Mass	50.7	39.82	131	102
Charleston, S. C	65.6	52.15	105	156
Chicago, Ill	48.8	34.95	117	104
Jacksonville, Fla	68.4	46.22	102	165
Key West, Fla.	76.0	52.67	127	114
Lynchburg, Va	57.2	60.58	154	85
Memphis, Tenn,	56.3	44.67	116	159
New Haven, Conn	50.6	59.78	167	106
New York City	53.5	58.68	152	65
Norfolk, Va	59.1	70.72	156	99
Philadelphia, Pa	54.8	50.60	160	97
Portland, Me	46.4	41.92	128	85
St. Louis, Mo	56.0	33.16	95	138
St. Paul, Minn	45.0	16.96	98	99
San Diego, Cal	62.6	16.03	50	194
Washington, D. C	55.1	61.33	153	120

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